REMARKS RELATING TO THE LAST OFFICE ACTION IN THE PARENT APPLICATION

In view of the amendments above, claims 34-43 are now pending.

Support for new claims 34 and 35 may be found throughout the specification, including page 11. Support for new claim 36 may be found throughout the specification, including page 7. Support for new claims 37 and 38 may be found throughout the specification, including page 5. Support for new claim 39 may be found throughout the specification, including page 12. Support for new claims 41 and 42 may be found throughout the specification, including pages 9 and 13, and 17 respectively. Support for new claims 40 and 42 may be found throughout the specification, including page 10, and pages 9 and 12, respectively. No new matter has been added.

Rejection under 35 USC § 112, second paragraph:

The Examiner rejected claims 16, 19, 25 and 30 under 35 USC § 112, second paragraph, for being indefinite and for failing to point out and distinctly claim the subject matter which Applicants regard as their invention. Applicants submit that this ground of rejection should not be applied against the new claims. In particular, the new claims do not use the term that was objected to, namely "variants."

Rejection under 35 USC § 112, first paragraph:

The Examiner rejected claims 16-17, 19, 23, 25, and 29-30 under 35 USC § 112, first paragraph, for allegedly not being enabled by the specification. Specifically, the Examiner states that the specification does not provide enablement to make and use the invention, because it does not provide enablement for using any or all variants of sequences encoding the epitopes I and II in any kind of mixture or length for detecting the antibody against gp41 of any subtype of HIV group M. Applicants submit that this ground of rejection should not be applied against new claims 34-43, since these are enabled by the specification.

Rejection under 35 USC § 103(a):

Claims 15-17, 19, 21, 23, 25, 29-30, and 32 have been rejected under 35 USC § 103(a) as being unpatentable over De Ley *et al.* (WO 93/18054) and Chamaret *et al.* (FR 2730493-A1). The Examiner asserts that the combination of the teachings from De Ley *et al.* (concerning a method of using HIV peptide antigens) and Chamaret *et al.* (concerning use of an HIV1 gp41 peptide) would lead to the invention. For the following reasons, Applicants submit that this ground of rejection should not be applied to new claims 34-43.

First, as stated in MPEP § 2143.01, "there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the references' teachings." The Examiner has not demonstrated such motivation since neither reference suggests the combination of the elements of the other. The combination of the De Ley *et al.* and Chamaret *et al.* references is thus improper and should not be used against new claims 34-43.

Second, even if properly combined, there are elements of claims 34-43 which are not found in the combination of De Ley *et al.* and Chamaret *et al.*

As to claims 34-38, neither reference teaches an immunoassay method for detection of an antibody against HIV comprising of contacting a sample with at least one antigen mixture selected from the group consisting of (a) a mixture of an antigen from an epitope region II, amino acids 518-533, of an HIV1-subtype D isolate, and an antigen from the epitope II region of gp41 of a different HIV1 subtype of the M group, and (b) a mixture of an antigen from epitope region I, amino acids 551-565, of an HIV1-subtype E isolate, and an antigen derived from an epitope region I of gp41 of a different HIV1 subtype of the M group, characterized in that an antigen in the mixture binds to the antibody.

As to claims 39-42, neither reference teaches an antigen mixture comprising an antigen from the epitope region II, amino acids 518-533, of an HIV1-subtype D isolate, and an antigen from the epitope region II of gp41 of a different HIV1-subtype of the group M.

Also, as to claim 42, neither reference teaches an immunoassay method for detection of an antibody against HIV contacting said sample with an antigen comprising a ten amino acid sequence selected from the group consisting of SEQ ID NOs. 35, 36,

37, 38 and 39, characterized in that said antigen is bound to a label which generates a detectable signal when the antigen is bound to said antibody.

Consequently, neither De Ley *et al.* nor Chamaret *et al.*, either alone or in proper combination, would have taught or suggested one of ordinary skill in the art to use the invention. Accordingly, Applicants submit that this ground of rejection should not be applied against new claims 34-43.

CONCLUSION

The Applicants respectfully submit that new claims 34-43 are patentable and the present application is now in condition for allowance. Should the Examiner feel a discussion would expedite the prosecution of this application, the Examiner is kindly invited to contact Applicants' undersigned attorney.

Respectfully submitted,

Jeffery M. Duncan
Registration No. 31,604
Attorney for Applicant

BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, ILLINOIS 60610
(312) 321-4200

4235